

## **TOWN OF DAVIE TOWN COUNCIL AGENDA REPORT**

**TO:** Mayor and Council Members

**FROM/PHONE:** Bruce Taylor/954-327-3741

**PREPARED BY:** Le Nguyen, P.E., Acting Town Engineer and  
John Phillips, Chief Engineering Inspector (954) 797-1198

**SUBJECT:** Ordinance

**AFFECTED DISTRICT:** Townwide

**ITEM REQUEST:** Schedule for Council Meeting

**TITLE OF AGENDA ITEM:** CODE AMENDMENT - AN ORDINANCE OF THE TOWN OF DAVIE, FLORIDA, AMENDING CHAPTER 25, CODE OF ORDINANCES, ENTITLED "UTILITIES", BY CREATING ARTICLE V BY INTRODUCING BACKFLOW AND CROSS CONNECTION CONTROL REQUIREMENTS, BY CREATING SECTIONS 25-41 THROUGH 25-60 AS REQUIRED BY FLORIDA STATUTE 403.855 AND FLORIDA ADMINISTRATIVE CODE, CHAPTER 62-555. {Approved on First Reading on February 17, 2010. The vote is as follows: Mayor Paul: yes; Vice Mayor Crowley: yes; Councilmember Caletka: yes; Councilmember Luis: yes; Councilmember Starkey: away from dais}

**REPORT IN BRIEF:** The Safe Drinking Water act (SDWA) is the main federal law that ensures the quality of Americans' drinking water. Under SDWA, the Environmental Protection Agency (EPA) sets standards for drinking water quality and oversees the states, localities, and water suppliers who implement those standards. In addition, Florida Administrative Code (FAC), Chapter 62-55.360, has provided cross-connection control requirements for public water systems and reference the American Water Works Association (AWWA) Manual M14, as incorporated into Rule 62-555.330, FAC. The SDWA, FAC and AWWA require the water purveyor to establish a Backflow and Cross-Connection Control Program.

**PREVIOUS ACTIONS:** None

**CONCURRENCES:** Reviewed and approved by Town Attorney

**FISCAL IMPACT:** Yes

Has request been budgeted? No

If no, amount needed: \$11,500 (Software)

What account name and number will funds be appropriated from:

Equipment Replacement 040-1058-536-6405

Additional Comments:

**RECOMMENDATION(S):** Motion to approve resolution The Utilities Director recommends that the Backflow and Cross-Connection Control Program be approved.

**Attachment(s):** Ordinance

ORDINANCE \_\_\_\_\_

AN ORDINANCE OF THE TOWN OF DAVIE, FLORIDA, AMENDING CHAPTER 25, CODE OF ORDINANCES, ENTITLED “UTILITIES”, BY CREATING ARTICLE V BY INTRODUCING BACKFLOW AND CROSS-CONNECTION CONTROL REQUIREMENTS, BY CREATING SECTIONS 25-41 THROUGH 25-60 AS REQUIRED BY FLORIDA STATUTE 403.855 AND FLORIDA ADMINISTRATIVE CODE, CHAPTER 62-555 PROVIDING FOR SEVERABILITY; PROVIDING FOR CODIFICATION; PROVIDING FOR AN EFFECTIVE DATE.

**WHEREAS**, the Florida Statutes and Florida Administrative Code require backflow and cross-connection control programs be implemented by the water purveyor; and

**WHEREAS**, it is the recommendation of the Town Utilities Director that a backflow and cross-connection control program be incorporated into the Town Code of Ordinances; and

**WHEREAS**, the Town Council of Davie, Florida, finds and determines the Backflow and Cross-connection Control Program required by State Law (F.S.403.855) and Administrative Code, Chapter 62-555.360 is necessary to protect the health, safety, property and welfare of the citizens, residents and inhabitants of the Town of Davie.

NOW, THEREFORE, BE IT RESOLVED BY THE TOWN COUNCIL OF THE TOWN OF DAVIE, FLORIDA:

**Section 1:** That Chapter 25 Code of Ordinances entitled “Utilities”, is hereby amended by creating Article V, thereof entitled “Backflow and Cross-connection Control” and creating Sections 25-41 through 25-60 to read and provide as follows:

**ARTICLE V: BACKFLOW AND CROSS-CONNECTION CONTROL**

**Sec. 25-41. Short Title**

This article shall be known as “The Town of Davie Backflow and Cross-Connection Control Ordinance.”

**Sec. 25-42. Applicability**

This article shall apply to the service area of the Town of Davie water system.

**Sec. 25-43. Purpose**

The purpose of this article is:

- (1) To protect the public potable water supply of the Town from the possibility of contamination or pollution by isolating within the customer’s system such contamination or pollutants that could backflow into the water system; and
- (2) To promote the elimination or potential of existing cross-connections, which could create backflow and backsiphonage between the customer’s system and plumbing fixtures and industrial piping system; and
- (3) To provide for the maintenance of a continuing program of cross-connection control that will systematically and effectively prevent the contamination or pollution of the Town’s water system.

**Sec. 25-44. Responsibility**

- (1) The Utilities Director is responsible for the protection of the potable water system from contamination or pollution due to the backflow or backsiphonage of contaminants or pollution through water service connections.
- (2) If, in the judgment of the Utilities Director, an approved backflow prevention device is required at the Town’s water service connection to any customer’s premises for the safety of the system, the Utilities Director or his designated agent shall give notice in writing to the customer to install such an approved backflow prevention device at each service connection to his premises. The customer shall immediately install such approved device or devices at his own expense. The failure, refusal or inability on the part of the customer to install such device or devices shall constitute grounds for

discontinuing water services to the premises until such device or devices have been properly installed.

(3) The Building Official shall be responsible for ensuring that the initial installation and testing of the backflow prevention device(s) has been done properly and in accordance with this Article. The Utilities Director will be responsible for ensuring implementation of annual testing and renewal requirements for the backflow prevention devices in accordance with this article. This article does not change or supersede any building codes related to fire prevention or any provisions of F.S. § 633, Fire Prevention and Control. The owner and customer will be responsible for complying with all applicable fire protection codes, statutes and ordinances.

## **Sec. 25-45. Definitions**

[The following words, terms and phrases, when used in this article, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:]

*Air gap separation* means the unobstructed vertical distance through the free atmosphere between the lowest opening from any pipe or faucet supplying water to a tank, plumbing fixture, or other device and the flood level rim of such vessel.

*Approved* means accepted by the utilities or building departments as meeting an applicable specification stated or cited in this article, and is suitable for the proposed use.

*Auxiliary water supply* means any water supply on or available to the premises other than the purveyor's approved public water supply.

*Backflow* means the flow of water or other liquids, mixtures or substances under pressure into the water system from any source or sources other than its intended source.

*Backflow prevention device* means any assembly, device or other means designed to prevent flow reversal through pipes or valves.

*Building official* means the principal enforcing officer of the South Florida Building Code within a particular jurisdiction. In the Town, it shall be the building official.

*Certified backflow tester/technician* means a person certified through one (1) of the following agencies as being competent to test, repair, overhaul, certify the operation, and make reports on backflow prevention devices:

A.W.W.A. (American Water Works Association)

F.W.P.C.O.A. (Florida Water Pollution Control Operator's Association)

A.S.S.E (American Society of Sanitary Engineers)

N.E.T.T.I (National Environmental Technology Training Institute)

F.C.C.C.H.R. (Foundation for Cross-connection Control and Hydraulic Research)

T.R.E.E.O. (Training Research and Education for Environmental Occupations)

I.C.C.C. (Institution for Cross-connection Control)

or by the device manufacturer's representative.

*Backsiphonage* means backflow caused by negative or reduced pressure in the potable water supply system.

*Contamination* means an impairment of the potable water supply by the introduction or admission of any foreign substance that degrades the quality and causes a health hazard.

*Cross-connection* means any physical connection or arrangement of piping or fixtures between two (2) otherwise separate piping systems, one of which contains potable water and the other non-potable water or industrial fluids, through which, or because of which, backflow or backsiphonage may occur into the water system.

*Cross-connection controlled* means a connection between a potable water system and a non-potable water source with an approved backflow prevention device properly installed that will continuously afford the protection commensurate with the degree of hazard.

*Customer* means the person, firm, corporation or other legal entity whose name or names appear on billing for a water service connection from the Town.

*Degree of hazard* means the term derived from an evaluation of the potential risk to public health and the adverse effect of the hazard upon the potable water system.

*Hazard, health* means any condition, device, or practice in the water supply system and its operation which could create or, in the judgment of the Utilities Director, may create a danger to the health and well-being of the water consumer.

*Hazard, plumbing* means a plumbing-type cross-connection in a consumer's potable water system that has not been properly protected by a vacuum breaker, air gap separation, or backflow prevention device.

*Hazard, pollution* means an actual or potential threat to the physical properties of the water system or to the potability of the public or the consumer's potable water system which could constitute a nuisance or be aesthetically objectionable or could cause damage to the system or its appurtenances, but would not be dangerous to health.

*Hazard, system* means an actual or potential threat of severe damage to the physical properties of the public potable water system or the consumer's potable water system or of a pollutant or contaminant which would have a protracted effect on the quality of the potable water in the system.

*Double check valve assembly* means a device composed of two (2) single, independently-acting check valves, including tightly closing shut-off valves located at each end of the device, plus properly located test cocks for the testing of each check valve.

*Dual check valve device* means a compact unit manufactured with two (2) independent spring-action check valves to prevent backflow. This device shall be used only on residential property to protect against a pollution hazard.

*Industrial fluids system* means any system containing a fluid or solution which may be chemically, biologically, or otherwise contaminated or polluted in a form or concentration such as would constitute a health, system, pollution, or plumbing hazard if introduced into an approved water supply.

*Owner* means the person, firm, corporation or other legal entity that holds title to a property or premises.

*Potable water* means any water which, according to recognized standards, is safe for human consumption.

*Purveyor* or *water purveyor* means the Town's Utilities Department.

*Reduced pressure principle device* means any assembly of two (2) independently operating approved check valves with an automatically operating differential relief valve between the two (2) check valves, tightly closing shutoff valves on either side of the check valves, plus properly located test cocks for the testing of the check and relief valves.

*Retrofit* means any work or modification to an existing facility.

*Service connection* means the terminal end of a service connection from the public potable water system. Service connection shall also include connections from a fire hydrant and all other temporary or emergency connections from the utility system.

#### **Sec. 25-46. Policy**

(1) No water service connection to commercial/industrial, multiple-family dwelling or new residential units shall be installed or maintained by the Town's Utilities Department unless the water supply is protected as required by state law (F.S. § 403.855) and regulation (Florida Administrative Code, Chapter 62-555) and this article. Service of water to these premises shall be discontinued by the water purveyor if a backflow prevention device required by this article is not installed, tested, and maintained, or if it is found that a backflow prevention device has been removed, bypassed, or if an unprotected cross-connection exists on the premises. Service will not be restored until such conditions or defects are corrected.

(2) Existing single-family dwelling units which have not had backflow devices installed will not be required to install a backflow assembly or device unless the Utilities

Director determines that a potential risk to the potable water system exists as established under this article as to degree of hazard.

(3) The customer has the prime responsibility of preventing contaminants and pollutants from entering his/her water system, and from entering the public water main or water source from his/her water system. The customer shall protect his/her water system against actual or potential cross-connections, to prevent backflow, as required by this article and the South Florida Building Code and other applicable regulations. The customer shall ensure that all protective devices are tested and maintained in the working condition required. He/she shall assure the necessary plumbing permits are obtained for new water supply system installations, and for retrofits, alterations or repairs to existing systems, as required by this article and the South Florida Building Code. Retrofit installation of dual check valve devices for single family residential dwelling units only will not require a building permit.

(4) The customer's system should be open for inspection at all reasonable times to authorized representatives of the Utilities Department, the Building Department and the Broward County Public Health Unit to determine whether cross-connections or other structural or sanitary hazards exist. When such a condition becomes known, the Utilities Director shall deny or immediately discontinue service to the premises by providing for a physical break in the service line until the customer has corrected the condition in conformance with state and city laws relating to plumbing and water supplies and the regulations adopted pursuant thereto.

(5) An approved backflow prevention device shall be installed, at the customer's expense, on each service line to a customer's water system at or near the service connection and within the Town's utility easement unless approved otherwise by the Building Official or director of Utilities Director. In all cases, the backflow shall be in the first branch line leading off the service line, wherever the following conditions exist:

(a) In the case of premises having an auxiliary water supply, the public water system shall be protected against backflow from the premises by installing a backflow prevention device in the service line appropriate to the degree of hazard.

(b) In the case of premises upon which any industrial fluids or any other objectionable substance is handled in such a fashion as to create an actual or potential

hazard to the public water system, the public system shall be protected against backflow from the premises by installing a backflow prevention device in the service line appropriate to the degree of hazard. This shall include the handling of process waters and waters originating from the utility system which have been subject to deterioration in quality.

(c) In the case of premises having internal cross-connections that cannot be permanently corrected and controlled, intricate plumbing and piping arrangements, or where entry to all portions of the premises is not readily accessible for inspection purposes, making it impracticable or impossible to ascertain whether or not dangerous cross-connections exist, the public water system shall be protected against backflow from the premises by installing a backflow prevention device in the service line.

(6) The type of protective device required shall depend upon the degree of hazard which exists, as follows:

(a) In the case of any premises where there is an auxiliary water supply as stated in this section, the public water system shall be protected by an approved air gap separation or an approved reduced pressure principle backflow prevention device.

(b) In the case of any premises where there is water or some substance that would be objectionable but not hazardous to health if introduced into the public water system, the public water system shall be protected by an approved double check valve assembly.

(c) In the case of any premises where there is any material dangerous to health which is handled in such a fashion as to create an actual or potential hazard to the public water system, the public water system shall be protected by an approved air-gap separation or an approved reduced pressure principle backflow prevention device. Examples of premises where these conditions may exist include wastewater treatment plants, wastewater pumping stations, chemical manufacturing plants, hospitals, mortuaries, and metal plating plants.

(d) In the case of any premises where there are cross-connections that are not controlled, either actual or potential, the public water system shall be protected by an approved air gap separation or an approved reduced pressure principle backflow prevention device at the service connection.

(e) In the case of any premises where, because of security requirements or other prohibitions or restrictions, it is impossible or impractical to make a complete in-plant cross-connection survey, the public water system shall be protected against backflow or backsiphonage from the premises by the installation of a backflow prevention device in the service line. In this case, maximum protection will be required, that is, an approved air-gap separation or an approved reduction pressure principle backflow prevention device shall be installed in each service to the premises.

#### **Sec. 25-47. Inspections and Recertification**

(1) It shall be the duty of the customer at any premises where backflow prevention assemblies are installed, to have certified inspections and recertification tests made at least once per year. Single-family dwelling units with dual check valve devices are not required to comply with this section. In those instances where the Plumbing Official or the Utilities Director deems the hazard to be great enough, either may require certified inspections at more frequent intervals. Inspections and recertification tests shall be at the expense of the customer and shall be performed by a certified backflow tester/technician approved by the Utilities Director or his designee.

(2) A plumbing permit must be obtained from the Building Department for all new installations and retrofits in accordance with this article. The customer shall be responsible for having a certified backflow tester/technician conduct an annual recertification and inspection of his/her backflow prevention device. Copies of the records of all tests and repairs, including the initial certification, shall be sent to the Utilities Department within sixty (60) days on a form provided by the Utilities Department.

(3) The Town shall have the authority and responsibility to conduct an aggressive backflow inspection program. Test results of these inspections shall be maintained for a period of seven (7) years.

(4) All presently installed backflow prevention devices which do not meet the requirements of this section but were approved devices for the purposes described herein

at the time of installation and which have been properly maintained shall, except for the inspection maintenance requirements, be excluded from the requirements of these rules so long as these backflow prevention devices will protect the public potable water supply system in accordance with Florida Administrative Code, Chapter 62-555. Whenever the existing device is moved from the present location or requires more than minimum maintenance, or when the Utilities Director finds that the maintenance constitutes a hazard to health, the unit shall be replaced by a backflow prevention device meeting the requirements of this section.

#### **Sec. 25-48. Fees and Permits**

(1) Permits for new installation, retrofitting and certification of backflow devices/assemblies as required by this Ordinance must be obtained from the Building Department by a master plumber in accordance with Chapter 4620 of the South Florida Building Code. The applicant shall pay the building permit fee in effect at the time of issuance of the permit. However, the Utilities Department shall install, certify and recertify all backflow devices on Town facilities without the requirements for permits or fees from the Building Department as allowed by State law (F.S. § 489.103).

(2) The certification and recertification of all backflow devices on all private property shall be performed only by a certified backflow tester/technician.

(3) Backflow test and installation fee charges shall be set by Resolution of the Town Council.

(4) A utilities backflow fee must be paid by the owner at the time of recertification. The fee shall be set by Resolution.

#### **Sec. 25-49. Penalties**

(1) Any person who knowingly fails or refuses to obey or comply with, or willfully violates any of the provisions of this article, or any lawful rule or regulation promulgated hereunder, or any lawful order of the Utilities Director issued pursuant to the provisions of this Article, shall, upon conviction of such offense, be subject to

punishment as provided by law. Each day during which the knowing or willful failure or refusal to comply with this Article continues shall constitute a separate offense.

(2) Any person who violates any of the provision of this Article shall be liable to the Town for all costs and damages incurred by the Town as a proximate result of such violation plus a fine up to five hundred dollars (\$500.00) per day.

**Sec. 25-50—25-60. Reserved**

\*\*\*\*\*  
\*\*\*\*\*

**Section 2:** That in the event any provision or application of this Ordinance shall be held to be invalid, it is the legislative intent that the other provisions and applications hereof shall not be thereby affected.

**Section 3:** That the provisions of this Ordinance shall be codified within the Code of Ordinances of the Town of Davie, Florida, and any paragraph or section may be renumbered to conform to the Code of Ordinances.

**Section 4:** That all Ordinances or parts of Ordinances in conflict herewith are to the extent of said conflict, hereby repealed.

**Section 5:** This ordinance shall take effect immediately upon its passage and adoption.

PASSED ON FIRST READING THIS \_\_\_\_ DAY OF \_\_\_\_\_, 2010

PASSED ON SECOND READING THIS \_\_\_\_ DAY OF \_\_\_\_\_, 2010

\_\_\_\_\_  
MAYOR/COUNCILMEMBER  
ATTEST:

\_\_\_\_\_  
TOWN CLERK

APPROVED THIS \_\_\_\_ DAY OF \_\_\_\_\_, 2010